

BIOGRAPHICAL SKETCH

NAME: Urmila P. Kodavanti

POSITION TITLE: Research Biologist

EDUCATION/TRAINING

Institution	Degree	Year	Field of Study
Saurashtra University, Bhavnagar, India	B.S.	1977	Zoology, Botany, Chemistry
Maharaja Sayajirao Univ, Baroda, India	M.S.	1979	Zoology (Major: Fish and Avian)
Maharaja Sayajirao Univ, Baroda, India	Ph.D.	1983	Pesticide Toxicology (Aquatic)

PROFESSIONAL EXPERIENCE:

2002-Present Research Biologist (GS-14), US EPA, NHEERL/ETD/PTB, RTP, NC
1998-2002 Research Biologist (GS-13), US EPA, NHEERL/ETD/PTB, RTP, NC
1995-1998 Research Biologist (GS-12), US EPA, NHEERL/ETD/PTB, RTP, NC
1992-1994 Research Fellow, CEMLB, University of North Carolina, Chapel Hill, NC
1985-1991 Research Associate, Dept Pharmacol Toxicol, Univ Miss Med Ctr, Jackson, MS
1984-1985 Post Doctoral Fellow, Dept Pharmacol Toxicol, Michigan State Univ, Lansing, MI
1983-1984 Lecturer, Department of Foods and Nutrition, MS University, Baroda, India
1982-1983 Teaching Assistant, Department of Zoology, MS University, Baroda, India
1979-1983 Junior Research Fellow, University Grants Commission, New Delhi, India

PROFESSIONAL SOCIETIES:

Society of Toxicology (2002-present)
American Thoracic Society (2001-present)
Genotoxicity & Environmental Mutagen Society, (2000 to present)
North Carolina Chapter of Society of Toxicology (1993-present)

AWARDS AND HONORS SINCE 1999 (Selected):

EPA Honor Award, Gold Medal for PM Health Research Team, EPA, 2003
EPA Scientific and Technological Achievement Award, Level III, 2001(SAB) for a review paper on Rodent Models of Cardiopulmonary Disease, EHP.
EPA Scientific and Technological Achievement Award, Level III, 2001 (SAB) for a paper on "Pulmonary Responses to Oil Fly Ash Particles in the Rat, Toxicol Sci.
"The Paper of the Year" First author award, Society of Toxicology, Inhalation Speciality, 1999 for, "Pulmonary Responses to Oil Fly Ash Particles in the Rat, Toxicol Sci. NHEERL ORD/EPA Strategic plan, "Futures Issues" team award, 2001.

INVITED LECTURES/SYMPOSIA SINCE 1999 (Selected):

Society of Toxicology, New Orleans, LA, March 1999. Workshop. "Models of cardiac and cardiopulmonary vascular disease".
Aspen Lung Conference, Aspen, CO, June 1999. "The combination of elastase and sulfur dioxide exposure causes COPD-like lesions in the rat".
XIth International Congress of Clinical Toxicology, Guaruja, Sao Paulo, Brasil, October 1999. s "Ambient particulate matter (PM) and human health".
Lovelace Respiratory Research Institute, International Symposium, Susceptibility factors for respiratory disease, Santa Fe, NM, Oct. 2000. "Rodent Models of diseases"
National Risk Management Research Laboratory, US EPA, Research Triangle Park, NC, June 2000. Seminar. "Lung Injury and Inflammation from Oil Combustion PM"
NTP/NIEHS, Research Triangle Park, NC 2001. Presentation. "Cardiovascular effects of Pulmonary Exposure to Particulate Matter"
University of Dusseldorf, Dusseldorf, Germany, September, 2001. Seminar. "PM health effects in susceptible animal models"
RIVM, Belthoven, Netherlands, September, 2001. Seminar. "PM health effects in animal models with cardiovascular diseases".

ASSISTANCE/LEADERSHIP PROVIDED TO THE SCIENTIFIC COMMUNITY:

3rd EPA/GSF workshop 2003: Planning Committee
2nd EPA/GSF workshop, 2001: Chair, Animal Toxicological Studies
2nd EPA/GSF workshop, 2001: Moderator, Cardiovascular session
Thesis Advisory Committee, Bei Yu, 2000-2001: ITEH, University of California, CA

2nd EPA/GSF workshop, 2001: Organizing Committee
Grant Review, University of Antwerp, Belgium, Joint Research Council on COPD, 2001

ASSISTANCE/LEADERSHIP PROVIDED TO THE AGENCY:

NHEERL, Open House, 1998 Organization Committee
NHEERL strategic plan, Goal5: Futures Planning Committee, NHEERL, EPA 1999
Emerging Issues Committee, NHEERL, EPA 1999-2000
GSF-EPA Tox Liaison, 2000-present
Document Review: IRIS document on Phosgene, 2001
NHEERL Genomics and Proteomics Committee: Division Representative, 2002-present.
Goal 8 Program Project on oxidative stress and susceptibility, Champion, 2002

SELECTED PUBLICATIONS (From January 1, 1998 to present, out of a total of 61):

1. Kodavanti, U. P., Costa, D. L., and Bromberg, P. Rodent models of cardiopulmonary disease: their potential applicability in studies of air pollutant susceptibility. *EHP.*: 106 (Suppl. 1): 111-130, 1998.
2. Kodavanti, U. P., Hauser, R., Christiani, D. C., Meng, Z. H., McGee, J., Ledbetter, A., Richards, J., and Costa, D. L. Pulmonary responses to oil fly ash particles in the rat differ by virtue of their specific soluble metals. *Toxicol. Sciences* 43: 204-212, 1998.
3. Kodavanti, U. P., and Costa, D. L. Animal Models to Study for Pollutant Effects. *Air Pollution and Health*. Eds. S.T. Holgate, J. M. Samet, H. L. Koren, R. L. Maynard. Academic Press, NY. 1999.
4. Kodavanti U. P., Jackson M. C., Ledbetter, A. D., Starcher, B., Evansky, P. A., Harewood, A., Winsett, D.W., and Costa, D.L. The combination of elastase and sulfur dioxide exposure causes COPD-like lesions in the rat. *Chest*: 117: 299S-302S, 2000.
5. Kodavanti, U. P., Mebane, R., Ledbetter, A., Krantz, T., McGee, J., Jackson, M., Walsh, L., Hilliard, H., Chen B-Y, Richard, J. R., and Costa, D. L. Variable pulmonary responses from exposure to concentrated ambient air particles in a rat model of bronchitis. *Toxicological Sciences* 54: 441-451, 2000.
6. Kodavanti, U. P., Schladweiler, M. C. J., Ledbetter, A., Watkinson, W. P., Campen, M. J., Winsett, D. W., Richards, J. R., Crissman, K., Hatch, G. E., and Costa, D. L. The spontaneously hypertensive rat as a model of human cardiovascular disease: Evidence of exacerbated cardiopulmonary injury and oxidative stress from inhaled emission particulate matter. *Toxicol. Appl. Pharmacol.* 164: 250-263, 2000.
7. Kodavanti, U. P., Schladweiler, M. C. J., Richards, J. R., and Costa, D. L. Acute lung injury from intratracheal exposure to fugitive residual oil fly ash and its constituent metals in normo- and spontaneously hypertensive rats. *Inh. Toxicol.* 13: 37-54, 2001.
8. Campen, M. J., Nolan, J.P., Schladweiler, M. C. J., Kodavanti, U. P., Evansky, P. A., Costa, D. L., and Watkinson, W. P. Cardiovascular and thermoregulatory effects of inhaled PM-associated transition metals: A potential interaction between nickel and vanadium. *Toxicol. Sci.* 64: 243-252, 2001.
9. Hatch G. E., Kodavanti, U. P., Costa, D., Dreher, K., Slade, R. An "injury- time integral " model for extrapolating from acute to chronic effects of phosgene. *Toxicology and Industrial Health* 17: 285-293, 2001.
10. Kodavanti, U. P., Schladweiler, M. C. J., Ledbetter, A., Hauser, R., Christiani, D. C., McGee, J., Richards, J. R., and Costa, D.L. Temporal association between pulmonary and systemic effects of particulate matter in healthy and cardiovascular compromised rats. *JTEH* 65):101-125, 2002.
11. Campen, M. J., Nolan, J. P., Schladweiler, M. C. J., Kodavanti, U. P., Costa, D. L. and Watkinson, W. P. Cardiac and thermoregulatory effects of instilled particulate matter-associated transition metals in healthy and cardiopulmonary-compromised rats. *J. Toxicol. Environ. Health*: 65: in press, 2002.
12. Nadadur, S. S. and Kodavanti, U. P. Altered rat lung gene expression profile in response to particulate matter (PM) and its constituent metal exposure. *J. Toxicol. Environ. Health* 65:1333-1350, 2002.
12. Moyer, C. F. Kodavanti, U. P., Haseman, J. K., Moronpot, R. R., Costa, D. L. and Nyska. A systemic vascular disease in male B6C3F1 mice exposed to particulate matter by inhalation: studies conducted by the National Toxicology Program. *Toxicologic Pathol.* 30:427-434, 2002.
13. Smith, K. R., Uyeminami, D. L., Chang, L.-Y., Kodavanti, U. P., Crapo, J. D., and Pinkerton, K. E. Mn(III) tetrakis -2,5-diehl imidazolium porphyrin (AEOL 10150) inhibits tobacco smoke-induced pulmonary inflammation in spontaneously hypertensive rats. *J. Free Radical Biol. Med.*33: , 2002.
14. Kodavanti, U. P., Schladweiler, M. C. J., Ledbetter, A.D., Hauser, R., Christiani, D. C., Samet, J.M., McGee, J., Richards, J. R., and Costa, D.L. Pulmonary and systemic effects of zinc-containing emission particles in three rat strains: multiple exposure scenarios. *Toxicol. Sci.* 70: 73-85, 2002.
15. Kodavanti, U. P., Moyer, C.F., Ledbetter, A.D., Schladweiler, M. C. J., Costa, D.L., Hauser, R., Christiani, D. C., A Nyska. Inhaled environmental combustion particles cause myocardial injury in the Wistar Kyoto rat. *Toxicol. Sci.* 71: 237-245, 2003.